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#### AN ESSAY

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# THE ORIENTAL BATH,

READ BEFORE THE

British Association for the Advancement of Science,

ON THE

29TH AUGUST, 1857.

BY

### EDWARD HAUGHTON, M.D.,

M.R.C.S.E., A.B. T.C.D., M.R.D.S., ETC.

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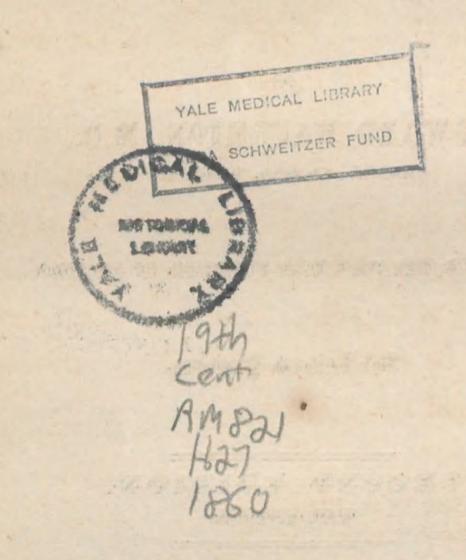
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### TO THE READER.

Since this Essay was written, much that is new, but not true; and true, but not new, has been published and circulated on the same topic; but the author does not see that he has left anything unsaid that is essential to a thorough comprehension of the subject. He therefore submits the original manuscript, revised and corrected, to the judgment of the public, believing that it will be found free, alike from party-spirit, inaccuracy, and exaggeration.

GALTRIM House, Bray, County Wicklow, 1st of March, 1860. MATHEMATICAL STREET

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## ON THE ORIENTAL BATH.

THE ORIENTAL BATH, which is now commencing to attract some attention in this country, is remarkable both for its antiquity, and for the influence which it has, from time to time, exerted upon national character-I had almost said, upon the destiny of nations. At this moment it is in daily use amongst many millions of people, and formerly existed throughout almost the whole of Europe, where, strange to say, it has become forgotten during the lapse of several centuries, and is only to be found in that corner of Europe occupied by the followers of Mahomet. For this reason it is best known to the Western nations by the name of "The Turkish Bath," having been described under that name in most of the accounts which have been brought before the British public. But the truth is, that there is scarcely a nation in the East which does not possess a somewhat similar institution: and even the wild red man of North America is in the habit of employing a kind of bath, as a remedial agent, which much more nearly resembles it than any of the baths which the public here are acquainted with. (1) There is a prevailing prejudice that the Eastern Bath always was, and always must continue to be Eastern, being only adapted for tropical climates.

But if we turn to the page of history, we shall soon have our doubts dispelled upon this point: for we find, that not only the ancient Greeks, but also the Romans, were acquainted with its virtues, and thought no expense too great in promoting what they justly considered the basis of all sanitation—the cleanliness of the people. Nor were the ancient physicians unacquainted with its remedial virtues; these baths being often prescribed by Hippocrates, Galen, and Celsus, together with the frictions which now form a part of the process. Again, we find Homer singing their praises in the Odyssey; and Herodotus tells us that the Scythians used them after the Trojan war. (2) Other authors speak of their existence amongst the ancient Egyptians, Indians, Chaldaans, and Persians; and Justin informs us that they were introduced by the Romans into Spain as early as the second Punic war. We are also informed by Baccius, that after the conquests of Julius Cæsar, they then passed into Germany, Gaul, and the British Islands, where they were employed for several hundred years. Even now, very fine remains of these buildings are to be seen in different parts of France and other European countries, which are sufficiently perfect to show the principle upon which they were constructed. It is of great importance that this principle should be well understood; because the efficacy of the Bath depends (even for its cleansing properties) upon the amount of heat and moisture, to whose influence the skin is subjected. To persons who are unacquainted with "The Eastern Bath," hot water and soap will, no doubt, appear the most effectual means of removing extraneous matters from the skin; but, we shall presently see, that although these very useful adjuncts are not omitted

in the Bath, they do not constitute it; but rather form its concluding feature. In principle it may be compared to an oven,-large enough to walk about in, and lighted from the top, that you may see what you are doing. In it the bather is surrounded by a medium of heated air, containing a little moisturejust sufficient to soften the skin, and to prevent any disagreeable effect being produced upon the lungs, (except in case of plethora of the pulmonary system), and not sufficient to interfere with the free exit of the cutaneous excretions; which are partly gaseous and partly liquid, holding in solution certain organic salts, of which the nitrogenous are those whose expulsion most benefits the system. In this bath, water is not absorbed by the skin, as in the Russian vapourbath, or the steam-baths of this country; but, on the contrary, it is given off, both from the pulmonary and cutaneous surfaces, in surprising quantities. Many persons feel a dislike to the idea of their skins performing their natural function; and would restrict the mention of perspiration to the lower orders of society. But the law of nature is inexorable! If man will not eat bread "in the sweat of his face," it has been ordained that he shall not eat the bread of health. The functions of the skin are absolutely essential, not merely to the preservation of health, but even to the existence of the individual, as has been proved by direct experiment. Dr. Berard, (Professor of Physiology in the Parisian School of Medicine.) thus expresses himself on this point, "Lorsqu'on enduit d'un vernis impermeable la peau dun mam mifère, on voit l'animal succomber au bout d'un certain mombre d'heures."(3) And every surgeon knows that the danger to be apprehended from

a burn or scald is in proportion to the extent of surface that has been injured. Nor need this excite our surprise, when we consider the immense number of perspiratory glands with which the skin is studded, throughout its entire extent. In one square inch of surface of the palm of the hand, Dr. Erasmus Wilson has counted no fewer than 3,528 of them; each furnished with a little duct, and having an open mouth. The quantity of fluid exhaled from the entire surface of the skin is estimated at about one pound and a-half in twenty-four hours; or about half as much more than that exhaled from the mucous membrane of the lungs in the same time; and the quantity of carbonic acid gas is very considerable: while the amount of nitrogenous effete matter transpired through the skin has been calculated at about one hundred grains per diem. The advantage derived from the expulsion of effete tissue in this way can hardly be over-estimated, inasmuch as it is the most direct way in which it can be got rid of; while it relieves internal congestions, and is most favorable to the capillary circulation. It may also be observed, that many substances are exhaled by the lungs besides carbonic acid gas and watery vapour; and that when the body is subjected to the action of heated air, their amount is still further increased; a phenomenon which cannot take place if the air respired be heavily loaded with vapour. The vapour-box, which allows the bather to breathe the external atmosphere, is also liable to objection, on account of the great care which is required for its administration; because the quantity of vapour in contact with the skin is so great, that it condenses upon it in drops, and is mistaken for perspiration, whose passage it really impedes, and whose

natural action of cooling the skin by evaporation, it wholly prevents. Thus the safeguard which nature has appointed against a too great elevation of temperature, is virtually taken away: and, in delicate persons, the most serious effects are thus frequently produced, for want of that solicitous attention which alone can prevent accidents from the use of an apparatus so defective. Here we see the great superiority of the Oriental Bath over those vapour-chambers with which it is commonly confounded: for the small quantity of vapour which is found in it, is only that which is produced by the water which is spilled on the hot floor during washing; and produces an agreeable, soothing effect, instead of the suffocating sensation which one experiences in those gloomy dens called vapour-chambers! A little consideration will suffice to show us that any contrivance by which vapour is admitted from the exterior by means of pipes, is liable to the above-mentioned objections; nor can anything approaching to a genuine Oriental Bath be obtained, except in a building specially constructed for the purpose. It is possible to remain in a Turkish Bath four or five times longer than in any other; and when the constitution has become inured to it, it is difficult to assign any limit to the length of time which a man may remain in it. The bathingmen or "Tellaks" of Constantinople have their apartments in the building, and are many hours a-day occupied in the hot-chambers. The idea of a bath without water seems to many people quite incomprehensible: but it is certain that the skin may be purified, and the body relieved of many extraneous matters, without the assistance of a denser medium than that which I have described. It is, in fact, that

which is most favorable for the removal of dead skin, with its attendant impurities; upon which the ordinary warm bath produces but a comparatively insignificant effect. In the Turkish Bath this gradual softening of the skin is accomplished in the second, or middle chamber, and which corresponds to the Tepidarium of the Romans. Here the bather, divested of his clothes, and having one towel loosely wrapped round his loins, and another over his shoulders, reclines at his ease, on a low couch, and smokes his long tchibouk or narghilé, and drinks some warm fluid, generally coffee or sherbet. In this manner perspiration is gradually established, and the skin becomes soft, when it is time to enter the hot chamber, or Caldarium of the Romans. Here systematic shampooing is performed for those who desire it; and with those who take no exercise, it must have a very beneficial influence upon the muscular and circulatory systems. The bather lies upon his back; and while in this position, the bath-man presses him all over, with a kind of kneading motion, and twists his joints about in a most extraordinary manner: so that, if a Western, he is apt to think such treatment rather an infringement upon his dignity. During this process, I need hardly say that the perspiration has become profuse; and the skin is ready for the use of the glove, which is made of goat's or camel's hair, woven in a peculiar manner. With this the body is rubbed in such a way as to detach the superabundant cuticle in little rolls or flakes. But it requires great dexterity to perform this well, without rubbing some places too much, and others too little. The bath-man who can do this skilfully, is sure to earn high wages; and they are difficult to

be got. After a considerable quantity of lifeless matter has been thus removed, the bath-man rubs up a great quantity of soap-lather, in a large bowl and washes the head of the bather. And this I always found the most disagreeable part of the bath; as they generally contrived to put the soap into my nose and ears; and if I had not shut my eyes very tight, I should inevitably have been half blinded. It is then usual to pour water over you several times, and leave you the remainder of the soap-lather to complete your own ablutions. All this time you are seated upon a most uncomfortably hot flag; which might be very advantageously replaced by wood, or some other non-conducting material. Then you are brought back to the second chamber, still shod with the wooden pattens which you put on before entering, to keep your feet off the hot flags: and having been lightly wiped, the dripping towels, with which you have been clad, are replaced by dry ones, the head not being forgotten. The utmost decorum is observed in all these operations; far more so, indeed, than in any public bathing-place in these countries. You are next brought back to the cool chamber, or Figidarium, in which you deposited your clothes on entering; and again reclining on a couch, well swathed in warm towels, you smoke some light tobacco, and drink some more coffee. Here the sensations are truly delicious. They are those of health, in which existence alone is sufficient to give pleasure, and in which we need only lie still, to be happy. But they are not restricted to the hour, or even the day of the Bath; but a lightness and cheerfulness for several days afterwards are the just reward of the care which has just been bestowed upon the body. The appearance of cleanliness

may be counterfeited by the starched linen which so often covers a multitude of impurities. But the attainment of the reality is necessarily accompanied by self-respect, and dignity of mind. In the bath we have a pleasure which is not a vice, -- a luxury which does not tend to shorten life; -- which may become universally obtainable; and which, as soon as there is sufficient demand for the article, to give encouragement to capital, must inevitably become cheap. It is the best purifier of the blood; for even poisons can be thus eliminated in large quantities, and for this reason, it is difficult to produce inebriation in one who makes frequent use of the bath. It is the best of all cosmetics, for the Mussulman scarcely knows of the existence of those loathsome skin diseases which are here so prevalent. In Turkey, rheumatism never reaches the chronic incurable stage which it does with us; and gout itself is known only as a disease of the Franks. It would be easy to mention other diseases from which it produces immunity; but it may be sufficient to remark, that the Turks, whose other habits are (almost without exception) unfavourable to health, are very seldom ill; and longevity would appear to be more common with them than amongst us. Is it an unfair or overdrawn conclusion, to attribute this to the great attention which they bestow upon the functions of the skin, when no other explanation is obtainable to account for it? But this is not all; physiology informs us, that the lungs are not the only organs of respiration, but that the skin has a vicarious action which assists them, and to a great extent supplies their place in certain cases. I quote again from Professor Berard's work on Physiology: "Il se fait au contact de l'air avec la peau, un

échange de gaz qui constitue, sourtout chez certaines especes, une veritable phénomène de respiration; c'est la respiration cutanèe. Non seulement il y a dégagement d'acide carbonique, absorption d'oxygene, et même exhalation d'une petite proportion d'azote; mais l'acte a les mêmes consêquences, et presque la même portée que celui de la respiration pulmonaire, puisqu'il peut suppléer celle-ci pendant un temps plus ou moins long. Bien plus, nous verrons que, la respiration pulmonaire devenant insuffissante pour certaines especes, et dans certaines conditions de temperature, la mort deviendrait inevitable, si la respiration cutanee ne fournissait l'appoint necessaire pour prevenir l'as-

phyxie."(4)

Thus we see that attention to the state of the skin is a matter of great importance, especially as the other emunctories of the system are quite insufficient to get rid of the noxious substances which we are perpetually swallowing, or the miasmatic exhalations which so often surround us, and are absorbed into our blood; nor even to dispose of the excess of wholesome, but superabundant aliment, which we impose upon our stomachs. It would not be too much to assert, that a very large proportion of human disease is traceable to an excess of carbon and hydrogen, or (what produces a similar result) a deficiency of oxygen in the system; the latter element being that by combination with which, the two former are consumed, or burnt off, and exhaled from the skin and pulmonary mucous membrane in the form of carbonic acid gas and watery vapour. When the functions of the skin are not performed, it is manifest that the lungs and other organs will have additional work to do, and are, in fact, overtasked, the result

being an unnatural accumulation of certain elements in the body, and then the efforts of nature to expel them (which are denominated disease), take place. This I believe to be the true theory of bilious attacks, and other great functional derangements, which assume, all at once, a virulence which would be quite unaccountable, were the recent habits of the patient to be alone taken into account. In that poisoning by lead, which is so common amongst housepainters in this country, we observe the same pheno-On the other hand, when the blood undergoes frequent purification the same result cannot occur. For example, I have been informed by Dr. Pierre Calyn (Physician to the Artillery Hospital) of Constantinople, that Colica Pictonum is rare amongst the workers in lead-paints of that city; and that rheumatism, when it exists, is invariably cured by the bath. With regard to the effects of alcohol upon the Turks, I may state, that during a month's sojourn in Constantinople, I never saw a drunken man, or witnessed a street brawl; although I have the authority of Dr. Millingen for stating, that already there is a large consumption of intoxicating liquors amongst all classes of the population, this being usually the first blessing which civilized nations confer upon their less sophisticated neighbours. # Frequenters of the bath appear to enjoy the same immunity from the ill effects of tobacco-smoke, which they draw into their LUNGS, by means of a peculiar pipe which can only be kept lighting by doing so. The practice of eating opium I have had no opportunity of observing; but it is spoken of, as being prevalent, and coffee is drunk upon every possible occasion. Those physicians who have had the greatest experience in

attending the Turks (and especially Dr Millingen, the Sultan's Physician,) believe that these happy results are attributable to the use of the Hammaam; and that the three hundred baths which the public of Constantinople have access to, are really substitutes for a certain number of hospitals, which must otherwise be built! The general public appear to have access to only two or three hospitals, which I visited, but did not find at all crowded, although the population of the city and suburbs is not less than 700,000 souls. With regard to the liability of taking cold after these baths, there is no exception made in the Mussulman's obligation to resort to them, to suit changes in the seasons; and I myself was not deterred from using them, by either wet or windy weather; both of which I encountered during my residence in "The City of the Sultan." It is however proper to add, that there are circumstances in which it would be highly injudicious to resort to the bath; and that accidents, amongst those who are unaware of the precautions to be observed, are by no means unfrequent.(5) But, on the whole, the balance of advantages is decidedly in favour of this sanitary institution. It has been objected to adopting any Turkish custom, that we are very much superior to the Turks, and do not need to learn anything from them: and in the matter of cleanliness least of all, because every traveller brings back word of the dirtiness of Constantinople, and other Eastern cities. But when we take into consideration the want of public corporations for paving, flagging, or sweeping their streets, we can easily conceive the condition in which wet weather will leave them, even amongst the most cleanly population. Therefore we must not

judge of Eastern habits from this point of view; as we find, on entering the houses, that the most scrupulous cleanliness is observed in all the interior arrangements. But the true answer to such objections, is simply, that the institution is not Turkish at all, but co-incident with every stage of Eastern civilization, and at one time was possessed by the greater portion of Europe, and even by Great Britain itself, so long as the Romans held dominion in these islands. causes which led to the abolition of the Roman Thermæ were sufficiently numerous; but they are believed to have originated in a mistaken hostility of the Christian bishops, (in the reign of Constantine), to some heathen customs which had become associated with immorality. However this may be, there is no doubt that a more enlightened philosophy is now disposed to care for the body as well as the mind, and to promote all sanitary improvements, for their moral, as well as material influences(6). Nor can any permanent social progress be expected apart from the two great bulwarks of public health: -bodily exercise adapted to every portion of the muscular system, and a mode of ablution, which (inwardly and outwardly) cleanses the body of all its impurities.



#### ILLUSTRATIVE NOTES.

(1) The following interesting letter from the celebrated founder of Pennsylvania was received in the year 1702 by Dr. Baynard, and published by Sir John Floyer, of Litchfield, the eminent hydropathist.

"As I find the Indians upon the continent more incident to fevers than any other distempers, so they rarely fail to cure themselves by great sweating, and immediately plunging themselves into cold water, which, they say, is the only way not to catch cold. I once saw an instance of it, with divers more in company. For being upon a discovery of the back part of the country, I called upon an Indian of note, whose name was Tenoughan, the captain-general of the clans of Indians of those parts. I found him ill of a fever, his head and limbs much affected with pain, and, at the same time, his wife preparing a bagnio for The bagnio resembled a large oven, into which he crept by a door on the one side, while she put several red-hot stones in at a small door on the other side thereof, and then fastened the doors as closely from the air as she could. Now, while he was sweating in this bagnio, his wife (for they disdain no service) was with an axe cutting her husband a passage into the river (being the winter of 1683, the great frost, and the ice very thick), in order to the immersing himself, after he should come out of the bath. In less than half-an-hour he was in so great a sweat, that when he came out he was as wet as if he had come out of a river, and the reek or steam of his body so thick, that it was hard to discern anybody's face that stood near him. In this condition \* \* he ran to the river, which was about twenty paces, and ducked himself twice or thrice therein, and so returned (passing only through his bagnio to mitigate the immediate stroke of the cold), to his own house, perhaps twenty paces further, and, wrapping himself in his woollen mantle, lay down at his length near a long (but gentle) fire in the middle of his wigwam, or house, turning himself several times till he was dry, and then he rose and fell to getting us our dinner, seeming to be as easy and well in health as at any other time, &c., &c.

"WILLIAM PENN."

Similar accounts of this Indian custom are given in Cox's "Columbia River," and by Mr. R. B. Gent, in his "History of Virginia;" the chief difference being, that in the two latter cases water is thrown or sprinkled on the stones, so as to render the air somewhat moist. It also appears that in Guatemala "the humid air-bath" is used as a simple luxury, without reference to its medical virtues, as may be seen from the following extract:—

"Water is in that valley, in certain seasons, a commodity rather difficult to get at from the village (Santa Catarina), as the descent to the river is a work of good three hours. I suppose that this inconvenience for frequent bathing must have been the source of a peculiar custom of the people, said to be as ancient as their tribe. This is the use of hot bath-houses. Every house has next to it one of them, in the shape of an oven, built of sun-bricks, or round

stones. It has no opening but a low door near the ground, big enough to allow a person to creep into it. The interior is heated by means of hot stones. A bowl of water is put in, the naked bather hocks on the ground, and the door is closed upon him. The heat evaporates the water in the bowl, and surrounding the body with an atmosphere of warm moisture, accelerates the process of evaporation, that soon streams down the skin like rain. When the bather feels himself thoroughly soaked, he comes forth, rubs himself dry, and is thus well bathed. In the Sierra Nevada, in California, I have seen similar buts, built of reeds and earth, for a similar purpose, but only used by the Indians there in cases of disease. The Caterina Indians are described as the most famous throughout Guatemala for carrying the heaviest burdens on their backs, over the worst of roads, for the longest distances, and in the shortest time; their products are all carried thus to the market of Guatemala. They generally go in bands of thirty or forty, Indian file, dog's trot, with the chief at their head, and each with his long staff, their support and their commonest weapon. Each with nearly two hundred pounds' weight on his back, supported by straps round the forehead, shoulders, and waist, bending forward, they go thirty miles a day without fatigue and in good time; and no rider has any chance with them in the steep parts of the roads."-G. F. Von Tempsky's Mitla: a Journey in Mexico, Guatemala, and Salvador, in 1853-5.

- (2) Rawlinson's translation of the passage is as follows:—"They make a booth, by fixing in the ground three sticks inclined towards one another, and stretching around them woollen felts, which they arrange so as to fit as close as possible: inside the booth a dish is placed upon the ground, into which they put a number of red-hot stones. Taking some hemp-seed (i. e., cannabis Indica), and creeping under the felt coverings, they throw it upon the red-hot stones; immediately it smokes, and gives out such a vapour as no Grecian vapour-bath can exceed. The Scyths delighted, shout for joy!" In the translation of Stephanus, Book iv. chap. 73, we find the following testimony to the prevalence of this custom, in a continuation of the same passage, viz.:—"Externis hi ritibus uti magnopere cauent, ne mutuo quidem inter se; sed Græcorum præcipue utique posteaquam deprehenderunt Anacharsin, et deinde iterum Scylem, siquidem Anacharsis quum multum orbis terrarum contemplatus esset, et multum in sapientia profecisset, eum ad mores Scytharum pertulit."
- (3) Translation:—"When one covers the skin of a mammal with an impermeable varnish, he sees the animal sink at the end of a certain number of hours."
- (4) Translation:—"There takes place in the contact of the air with the skin, an exchange of gas, which constitutes, particularly in certain species, a real respiratory phenomenon; it is the cutaneous respiration. Not only is there disengagement of carbonic acid, absorption of oxygen, and even exhalation of a small proportion of nitrogen, but the act has the same consequences, and almost the same scope, as that of the pulmonary respiration, inasmuch as it can substitute it during a time more or less long. Moreover, we see that the pulmonary respiration becoming insufficient for certain species, and in certain conditions of temperature, death would become inevitable if the cutaneous respiration did not furnish the addition necessary to prevent asphyxia."

<sup>(5)</sup> The following quotation from Dr. Beyran (late head-surgeon to the

hospital of Yedi-Koulé of Constantinople) will serve to show the necessity for caution on the part of invalids taking these baths:—"Les voyageurs et les militaires expéditionnaires en Orient, trouveront bien dans les Bains Turcs, toutes les conditions nécessaires à l'entretien des fonctions de la peau; toutefois, ils ne devront en user qu' avec une extrême réserve. Les individus à tempérament lymphatique on sanguin, ceux qui sont disposés aux congestions cérébrales, ceux ensin, qui sont affectés de maladies du cœur et du poumon s'en abstiendront complètement. Après ces bains, les refroidissemens sont si faciles et si fâcheux qu'on ne saurait trop s'en prémunir."

(6) Extract from Lord Stanley's Address to the National Association. Section, Public Health.

"I believe that whatever exceptions may be found in individual instances, when you come to deal with men in the mass, physical and moral decay necessarily go together; and it would be small satisfaction to know that we had, through a series of ages, successfully resisted every external enemy, if we learned too late that that vigour and energy for which ours stands confessedly pre-eminent amongst the races of the world, were being undermined by a secret but irresistible agency, the offspring of our own neglect, against which science and humanity had warned us in vain."

The preceding quotations have reference only to the subject-matter of the Essay, whilst those following have been added to show the part taken by the author in the present movement for the introduction of Eastern Baths:—

From The Free Press (published at London, Manchester, and Sheffield).

"A series of articles has just appeared in the Medical Gazette of Constantinople, which commence with this explanation of their own appearance:—'An English physician, Dr. Haughton, has undertaken the journey to Constantinople to investigate upon the spot a subject so full of interest, and in consequence of an Eastern Bath having been recently constructed in the neighbourhood of Cork from plans and directions furnished to the proprietor by the celebrated David Urquhart, &c.'"—May 26th, 1858.

From Chambers' Journal (London and Edinburgh).

"Dr. Haughton, who read a paper on the Oriental Bath before the British Association, at their Dublin meeting, has followed up the subject with a paper on Hot-Air Baths, in which he shows that a bath of hot air is oftentimes more beneficial than water; and that from the remains which may still be seen, there is 'abundant evidence that hundreds of years ago this kind of bath was in full operation in this very climate.' In certain parts of Ireland—Rathlin and on the borders of Fermanagh—there are 'sweating-houses,' in shape something like a Hottentot hut, to which the peasantry resort, and rid themselves of painful diseases by copious perspiration. Keep the skin in a proper condition by the use of hot-air-baths, says the doctor, and it will not only throw off what is impure from within but will absorb oxygen from without; gout, rheumatism, and diarrheea will be mitigated in their effects. 'I do not advocate a panacea,' he pursues, 'but I recommend an institution which will prevent, as well as cure disease; which comes down to us from the most remote ages, and is now used by a large proportion

of the human race; which is venerable from its antiquity, fo unded upon science, supported by authority, and confirmed by experience."—March 26th, 1859.

From the Dublin Builder .- On the Construction of Eastern Baths.

"It is very remarkable that the revival of Roman Baths should be due to Ireland, where we find no traces of their former existence; whilst those countries which formerly possessed them will now have to learn from us the manner of their construction. I have already made the public aware of some of the localities where their ruins exist, and of those countries in which they are still in operation; and I have now to inform them that the details of their construction are as varied as the different races and tribes which have employed them. I have spoken of the baths of the East on a former occasion as "hot-air-baths," in order to draw as wide a distinction as possible between "steam baths" (which are known in this country, and so much used in Russia), and those in which vapour exists but in small quantity, and does not form the essential feature of the bath. But it must be admitted, that in some Eastern Baths the amount of moisture is often very considerable, so as to make it difficult to select a name which is not calculated to mislead." \* \* \* \* If we compare modern Turkish Baths with Roman Thermæ, under the Emperors, we shall find a very great change for the better in the comparative simplicity of Mussulman customs. Indeed, I should be the last man in the country to advocate the abuse of the bath, which undoubtedly took place during the decline of the Roman Empire, and which has led many to stigmatise the institution itself, as the cause of evils which could only exist in a people whose energies had been dwarfed by tyranny, and enfeebled by luxury and effeminacy. The numerous apartments of these mighty palaces, whose ruins compel our admiration, can never, therefore, become objects of our imitation; but what is much better than external splendour, will be the practical utility and simple elegance of those 'temples of cleanliness,' which are destined, ere long, to spring up throughout the length and breadth of the Emerald Isle!"-By Edward Haughton, M.D., 1st April, 1859.

#### CONCLUDING OBSERVATIONS.

In order to encourage private parties to construct for themselves or their neighbours a kind of bath which I have shown to be so useful, I may mention that upwards of 100 of them are already in operation in Great Britain and Ireland. When materials are at hand, a very few pounds will cover all expenses. In Rathlin Island the material is turf and loose stones. In Fer managh and Tipperary, stone and mortar, or clay and stones covered with sods; whilst (some twenty years ago) large slates, placed against a hollow bank, were used for the same purpose, near the slate quarries of Kilkenny.

EDWARD HAUGHTON, M.D.

15th March, 1860.

Accession no. 23677

Author Haughton:
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